

## ABSTRACT

Features of a mouth in a current image of a sequence of digital images of a human face may be estimated by deriving a deformable mouth model template in an iterative process. The process may include minimizing an energy function receiving iteration-dependent arguments to determine optimal transformation parameters of an iteration-dependent transformation, and transforming components of the deformable mouth model template by the iteration-dependent transformation having the optimal transformation parameters. The deformable mouth model template is initialized more than once during the process. The deformable mouth model template may include modeling of teeth.